

2020 COURSE CATALOG

VECTOR[™]
SOLUTIONS

Convergence Training

DON'T WASTE YOUR MONEY ON BAD TRAINING

What good is training if nobody remembers it? Our courses provide focus to learners through the use of a modern and dynamic visual style built upon expertly written training content. Snappy storyboards and fluid transitions between key learning objectives keep learners engaged and help ensure they absorb and retain more of what they're being taught.

COURSE FEATURES

- AICC/SCORM compatible
- HTML5 video - play on any device
- Interactive quizzes & progress reviews
- Configurable pass/fail settings for each course
- "Video-only" mode for group viewing
- Configurable "self-paced" learning controls

LANGUAGES & TRANSLATIONS

Our courses are continually being translated into new languages. Our production style allows us to accommodate special translation requests fairly easily. Please contact us with your translation requirements.

* Course coming soon

MACHINE GUARDING
Machine Guarding Basics



Chances are you've never been seriously injured by a machine. You might not even know anyone who's been seriously hurt by a machine.

But machine accidents happen all the time. In the U.S., it's estimated there are around 15,000 machine accidents each year. These accidents result in horrible injuries like crushing of a body part, amputation, electric shock, and blindness. There are hundreds of workplace fatalities every year caused by machines. If you work around machinery, you shouldn't take your safety for granted.

Many machine accidents are due to faulty or missing machine guarding, or to workers taking shortcuts to

CONVERGENCE TRAINING

✕
☰
🏠
◀
▶

MACHINE GUARDING
Progress Review 2 of 6

Which of these machines has a self-adjusting barrier guard?







CONVERGENCE TRAINING

✕
☰
🏠
◀
▶

- | | |
|--|--|
| <p>E - English</p> <p>G - German</p> <p>S - Spanish</p> <p>C - Chinese</p> | <p>O - Other
(Czech, Dutch, French, Italian, Japanese, Korean, Polish, Portuguese, Russian, Swedish, Tamil)</p> |
|--|--|

INDUSTRIAL SKILLS

AUTOMATIC IDENTIFICATION & DATA COLLECTION

RFID Applications	E
RFID Basics	E
RFID Implementation	E
RFID Readers	E
RFID Tags	E
Barcodes	E
Scanning and Tracking Overview	E

BLUEPRINTS, SCHEMATICS AND DIAGRAMS

Blueprint Basics	E
Diagrams: Blueprints	E
Diagrams: Industrial Process Systems	E
Diagrams: Piping and Instrumentation	E
Electrical Drawings and Schematics	E
Process and Instrumentation Diagrams	E
Symbols, Standards, and Schematics	E

COMPUTER BASICS

Buses and Storage	E
Databases, Spreadsheets, and Word Processing	E
Input and Output Devices	E
Logic Technology, Logic Functions, & Analog Conversion	E
Microprocessors & Computer Memory	E
Networks	E
Networks: Fiber Optic Systems	E
Networks: Setting Up and Troubleshooting	E
Networks Introduction	E
OS Software and File Management	E
Remote and Analog Inputs and Outputs	E

CURRENT GOOD MANUFACTURING PRACTICES (CGMP)

cGMP Essentials: Change Control	E
cGMP Essentials: Data Integrity	E
cGMP Essentials: Deviation and CAPA	E
cGMP Essentials: Good Personal Hygiene	E
cGMP Essentials: Intro to cGMP	E
Current Good Manufacturing Practices	E

EQUIPMENT AND TOOLS

Auxiliary Vessels	E
Clamps, Blades, Saws, and Bits	E
Fastener Basics	E
Forklifts: Operation	E
Hand Tools, Part 1	E
Hand Tools, Part 2	E
Industrial Tools (Power Tools)	E
Introduction to Power Tools	E
Portable and Emergency Equipment	E
Precision Measurement Tools	E
Precision Measuring Tools	E
Table Saw Basics	E
Table Saw Operations	E
Wrenches and Hammers	E

INDUSTRIAL ELECTRONICS

Basic Electronics, Part 1	E
Basic Oscillator Circuits	E
Basic Rectifiers and DC Power Supplies	E
Bistable Devices	E
Converters	E
Digital Counters	E
Digital Logic	E
Diodes and Semiconductor Basics	E
Electrical Soldering	E
Electronic Cable	E
Electronic Circuit Board Repair	E
Electronic Safety	E
Filter Circuits	E
J-K Flip-Flops	E
Number Systems and Digital Codes	E
Operational Amplifier Circuits	E
Operational Amplifiers and Troubleshooting	E
Operational Amplifiers, Part 1	E
Operational Amplifiers, Part 2	E
Optoelectronics	E
Power Supplies	E
Principles of Semiconductors, Part 1: Bipolar Transistors	E
Principles of Semiconductors, Part 2: Bipolar Transistors	E
Radio Operation, Telephones, & Electromagnetic Waves	E
Radio Technology	E
SCRs and Troubleshooting	E



Silicon-controlled Rectifiers (SCRs) and TRIACs	E
Specialized Electronic Devices	E
Transistor Amplifiers	E
Transistor Configurations	E
Transistor Oscillators	E
Transistor Principles	E
Troubleshooting Operational Amplifier Circuits	E
Troubleshooting Power Supplies	E

INDUSTRIAL MATERIALS

Wood and Insulation Basics	E
Painting and Coating Basics	E
Plastic and Rubber Basics	E

MATH CONCEPTS

Arithmetic Operations Binary Numbers & Binary Codes	E
Boolean Algebra, Part 1	E
Boolean Algebra, Part 2	E
Boolean Algebra, Part 3	E
Industrial Math: Algebra	E
Industrial Math: Basic Operations, Part 1	E
Industrial Math: Basic Operations, Part 2	E
Industrial Math: Formulas, Graphs, and Trends	E
Math: Basics	E
Mathematics - Number Bases and Powers of Ten	E
Mathematics - Percentages and Fractions	E
Measurement - Dimensions	E

OPERATOR RESPONSIBILITIES

Operations: Basic Principles	E
Operator Basic Care	E
Operator Responsibilities: Advanced Responsibilities	E
Operator Responsibilities: Basic Responsibilities	E
Operator Responsibilities: Communication	E
Operator Responsibilities: Introduction	E
Operator Responsibilities: Plant Production & Safety	E
Operator Responsibilities: Trends & Emergencies	E

RIGGING

Advanced Rigging, Part 1	E
Advanced Rigging, Part 2	E
Rigging: Basic Lifting	E
Rigging: Ladders and Scaffolds	E
Basic Rigging, Part 1	E
Basic Rigging, Part 2	E

SCIENCE CONCEPTS

Basic Machines and Motion	E
Chemistry: Basic Principles, Part 1	E
Chemistry: Basic Principles, Part 2	E
Chemistry: Material Balancing	E
Chemistry: Reaction Rates	E
Fundamentals of Process Solubility	E
Matter States and Temperature	E
Physics Basics	E
Process Chemistry	E
Plant Science: Fluid Systems	E
Plant Science: Forces and Machines	E
Plant Science: Gases and Flowing Liquids	E
Plant Science: Heat	E
Plant Science: Heat Transfer	E
Plant Science: Process Dynamics and Measurement	E
Plant Science: Solids and Liquids	E
Typical Process Reactions, Part 1	E
Typical Process Reactions, Part 2	E

TROUBLESHOOTING

General Troubleshooting Strategies	E
Problem Solving Strategies	E
Troubleshooting: Basic Concepts	E
Troubleshooting: Process Examples	E

WELDING

Arc Welding Basics	E
Arc Welding Cut Types	E
Arc Welding Types	E
Metal Fabrication	E
Metals - Identifying Steel and Iron	E
Metals - Physical Properties and Types	E
Welding Equipment and Environments	E

CONTINUOUS IMPROVEMENT

5S

5S Methodology	E
The 5S System: 5S for Safety - New Eyes for the Shop Floor	E
The 5S System: An Introduction to 5S	E
The 5S System: Set in Order and Shine	E
The 5S System: Standardize and Sustain	E
The 5S System: Workplace Scan and Sort	E

LEAN BASICS

Essentials of Lean Manufacturing	E
Industrial Housekeeping	E
Understanding Facility Costs	E

QUALITY

Centerlining Methodology	E
ISO 9000	E
Meeting Customer Expectations	E
Seven Basic Quality Tools	E

TOTAL PRODUCTIVE MAINTENANCE (TPM)

Overall Equipment Effectiveness	E
TPM: Introduction	E
TPM: Overall Equipment Effectiveness	E
TPM: Predictive Maintenance	E
TPM: Preventive Maintenance	E

ELECTRICAL MAINTENANCE

BASIC ELECTRICAL THEORY

AC Fundamentals Review	E
Alternating Current	E
Basic Electricity Review	E
Current, Voltage, and Resistance	E
DC Fundamentals Review	E
Direct and Alternating Current	E
Electrical 2: Grounding	E
Protective Devices, Measures, & PPE	E
Electromagnetic Induction	E
Grounding	E
Impedance	E

Kirchhoff's Laws	E
Lighting Basics	E
Magnetism and Electromagnetism Basics	E
Ohm's Law	E
Plant Science: Basic Electrical Principles	E
Sources of Electricity, Part 1	E
Three-Phase Theory, AC Circuits, Delta & Wye Connections	E
Use of Ohm's and Kirchhoff's Laws in DC Circuits	E

ELECTRIC MOTORS

AC Motor Basics	E
AC Motor Operation and Types	E
DC Motor Basics	E
DC Motor Operation	E
DC Motor Types	E
Electric Motor Basics	E
Electrical 2: Motors: Theory and Application	E
Electrical Equipment: AC and DC Motors	E
Electrical Equipment: Motor Controllers and Operation	E
Motor Control Circuits and Functions	E
Motor Overload Protection	E
Motor Starters	E

ELECTRICAL CIRCUITS & COMPONENTS

Batteries	E
Battery Cell Construction, Maintenance, & Types	E
Battery Types and Charging Theory	E
Capacitors, Part 1	E
Capacitors, Part 2	E
Circuit and Switch Basics	E
Circuits and Power	E
Conductors	E
Construction of AC and DC Circuits	E
Contactors and Relays	E
Electrical 2: Circuit Breakers and Fuses	E
Electrical Equipment: Electrical Production & Distribution	E
Electrical Switches	E
Electrical Systems	E
Electrical Systems and Equipment, Part 1	E
Electrical Systems and Equipment, Part 2	E
Electromagnetic Relays	E
Fluorescent, Neon and HID Controls	E
Fuses	E
Ground Fault Circuit Interrupters	E



Inductors, Part 2	E
Insulators	E
Motor Branch Circuit Protection	E
Parallel Circuits	E
Plant Science: Basic Electrical Circuits	E
Relay Basics and Types	E
Resistors	E
Series Circuits	E
Series-Parallel Circuits	E
Transformers	E
Transformers, Breakers, and Switches	E

ELECTRICAL MAINTENANCE FUNDAMENTALS

AC Generator Maintenance	E
AC Motor Controller Maintenance, Part 1	E
AC Motor Controller Maintenance, Part 2	E
DC Motor Controller Maintenance, Part 1	E
DC Motor Controller Maintenance, Part 2	E
DC Motor Maintenance	E
Electrical Maintenance: Battery Systems	E
Electrical Maintenance: Fasteners	E
Electrical Maintenance: Introduction to the NEC	E
Electrical Maintenance: Relays, Part 1	E
Electrical Maintenance: Relays, Part 2	E
Electrical Maintenance: Troubleshooting Electrical Circuits	E
Maintenance of Air and Oil Circuit Breakers	E
Maintenance of High-Voltage Circuit Breakers	E
Maintenance of Low-Voltage Circuit Breakers	E
Single-Phase AC Induction Motor Maintenance	E
Synchronous Motor and Controller Maintenance	E
Three-Phase AC Induction Motor Maintenance	E
Transformer Maintenance	E
Troubleshooting Systems and Circuits	E

ELECTRICAL SCHEMATICS

Electrical 1: Electrical Diagrams	E
Reading Electrical Diagrams, Part 1	E
Reading Electrical Diagrams, Part 2	E

ELECTRICAL TEST EQUIPMENT

Digital Multimeters and Troubleshooting	E
Electrical Meters and Measurements	E
Hand Tools for Electrical Work	E

Measuring Current, Voltage, and Resistance	E
Non-conductive Tools	E
Oscilloscopes	E
Using Electrical Test Equipment	E
Using Electronic Test Equipment, Part 1	E
Using Electronic Test Equipment, Part 2	E
Using Electronic Test Equipment, Part 3	E

ELECTRICAL WIRING

Electrical 1: Cable Tray	E
Electrical 1: Commercial and Industrial Wiring	E
Electrical 2: Boxes and Fittings	E
Electrical 2: Electrical Lighting	E
Electrical 2: Installation of Electrical Services	E
Electrical Wiring and Connections	E
Electrical Wiring: Cables and Conductors	E
Electrical Wiring: Conduit Installation	E
Electrical Wiring: Splices and Terminations	E
Raceways	E

GENERATORS

AC Generator Basics	E
DC Generator Basics	E
Generators and PD Equipment	E

VARIABLE SPEED DRIVES

Variable Speed Drives: Common Applications	E
Variable Speed Drives: Controllers & Troubleshooting 1	E
Variable Speed Drives: Controllers & Troubleshooting 2	E
Variable Speed Drives: Installation	E
Variable Speed Drives: Introduction to VSDs	E
Variable Speed Drives: Programming AC Controllers	E
Variable Speed Drives: Programming DC Controllers	E
Variable Speed Drives: System Troubleshooting 1	E
Variable Speed Drives: System Troubleshooting 2	E
Variable Speed Drives: Systems and Integration	E

MECHANICAL MAINTENANCE

ASSET CONDITION MANAGEMENT

Applied Vibration Analysis: Analyzing Bearing Vibrations	E
Applied Vibration Analysis: Analyzing Fan Vibrations	E
Applied Vibration Analysis: Analyzing Gear Vibrations	E
Applied Vibration Analysis: Analyzing Motor Vibrations	E
Applied Vibration Analysis: Analyzing Pump Vibrations	E
Applied Vibration Analysis: Analyzing Spectral Data	E
Applied Vibration Analysis: Collecting Spectral Data	E
Applied Vibration Analysis: Introduction	E
Asset Condition Management: Alignment & Balancing	E
Asset Condition Management: Motor Testing	E
Asset Condition Management: Oil Analysis	E
Asset Condition Management: Vibration Analysis Training	E
Vibration Analysis: Introduction	E

BEARINGS

Bearings Basics	E
Roller Contact Bearings, Part 1	E
Rolling Contact Bearings, Part 2	E
Sliding Surface Bearings, Part 1	E
Sliding Surface Bearings, Part 2	E

COMPRESSORS

Centrifugal Compressors	E
Compressed Air Fundamentals	E
Compressors: Centrifugal and Axial	E
Compressors: Operation of Centrifugal and Axial Types	E
Compressors: Positive Displacement	E
Reciprocating Compressors, Part 1	E
Reciprocating Compressors, Part 2	E

CONVEYORS

Basic Conveyor Maintenance - Additional Equipment	E
Basic Conveyor Maintenance - Belts and Chains	E
Conveyor Belt Replacement	E
Conveyor Types and Components	E

HEAT EXCHANGERS

Heat Exchanger Basics	E
Heat Exchangers: Condensers and Reboilers	E
Heat Exchangers: Cooling Towers	E
Heat Exchangers: Operation of Shell and Tube Types	E

HYDRAULICS

Hydraulic System Basics	E
Hydraulic System Equipment	E
Hydraulic System Valves and Components	E
Hydraulics: Actuators	E
Hydraulics: Component Inspection and Replacement	E
Hydraulics: Diagrams	E
Hydraulics: Fluid and Reservoirs	E
Hydraulics: Principles and Circuits	E
Hydraulics: Pumps	E
Hydraulics: Routine Maintenance	E
Hydraulics: Troubleshooting	E
Hydraulics: Valves, Part 1	E
Hydraulics: Valves, Part 2	E

LUBRICATION

Basic Lubrication	E
Equipment Lubrication: Using Lubricants	E
Lubricants and Oils	E
Lubrication Basics	E

MECHANICAL DRIVES

Belt Drive Adjustment	E
Belt Drive Basics	E
Chain Drive Basics	E
Couplings	E
Equipment Drive Components: Couplings	E
Equipment Drive Components: Gear, Belt, & Chain Drives	E
Gear Drive Basics	E
Gears - Overhaul	E
Gears - Types and Characteristics	E
Mechanical Maintenance: Couplings	E
Mechanical Maintenance: Brakes and Clutches	E
Mechanical Maintenance: Gear Reducers	E
Mechanical Maintenance: Maintaining V-Belts	E
Maintaining Flexible Drives: Flat Belts, V-Belts, Timing Belts	E
Maintaining Flexible Drives: Roller Chain and Silent Chain	E

PIPES AND VALVES

Pipes and Valves: Basic Pipefitting Skills	E
Pipes and Valves: Calculating Offsets	E
Pipes and Valves: Installing Flanges, Copper, & Plastic Pipe	E



Pipes and Valves: Installing Pipe Hangers and Supports	E
Pipes and Valves: Installing Screw and Welded Pipe	E
Pipes and Valves: Motor Operators	E
Pipes and Valves: Pipes and Pipe Fittings	E
Pipes and Valves: Special Calculations	E
Pipes and Valves: Valve Maintenance	E
Pipes and Valves: Valve Types and Operation	E
Piping and Auxiliaries: Basic Components and Functions	E
Piping and Auxiliaries: System Components and Operation	E
Safety Valves	E
Valve Basics	E
Valve Common Problems	E
Valve Performance	E
Valves: Basic Types and Operation, Part 1	E
Valves: Basic Types and Operation, Part 2	E
Valves: Electric and Hydraulic Actuators	E
Valves: Introduction to Actuators	E

PNEUMATICS

Industrial Pneumatic Technology: Aftercoolers, Driers, Rec.	E
IPT: Air Preparation	E
IPT: Check Valves, Cyl., Motors	E
IPT: Compressors	E
IPT: Control of Pneu. Energy	E
IPT: Dir. Control Valves	E
IPT: Energy Transmission	E
IPT: Excess Flow Valves, Boosters, and Sequence Valves	E
IPT: Force Transmission	E
Pneumatic Basics	E
Pneumatics: Basic Pneumatic Control Systems	E
Pneumatics: Basic Pneumatic Control Systems & Diagrams	E
Pneumatics: Controllers	E
Pneumatics: Indicators and Hand-Auto Control Stations	E
Pneumatics: Pneumatic Instrument Tubing	E
Pneumatics: Self Balancing Instruments	E
Pneumatics: Transmitters	E
Pneumatics: Troubleshooting Pneu. Instrument Systems	E
Pneumatics: Tuning Pneumatic Control Systems	E

PUMPS

Centrifugal Pumps	E
Centrifugal Pumps Basics, Part 1	E
Centrifugal Pumps Basics, Part 2	E
Efficient Pump Operation	E

Multistage Centrifugal Pump Maintenance	E
Positive Displacement Pump Maintenance Basics	E
Pump Basics	E
Pump Types and Applications	E
Pumps: Fundamentals of Centrifugal Types	E
Pumps: Multistage Centrifugal	E
Pumps: Operation of Centrifugal Types	E
Pumps: Performance and Inspection	E
Pumps: Reciprocating Positive Displacement Types	E
Pumps: Rotary Positive Displacement Types	E

RELIABILITY

Equipment Maintenance and Reliability	E
Reliability Engineering Essentials	E
Reliability Essentials for Operators & Technicians	E

SEALS

Seals: Gaskets and Packing	E
Mechanical Seals	E

SHAFT ALIGNMENT

Shaft Alignment, Part 1	E
Shaft Alignment, Part 2	E
Shaft Alignment: Reverse Dial and Laser	E
Shaft Alignment: Rim and Face	E

FACILITIES MAINTENANCE

AIR SYSTEMS

Building Air Systems	E
Compressed Air Systems	E

FANS & DRYERS

Dryers	E
Drying Operations	E
Fans	E

HVAC

HVAC - Heating and Cooling	E
HVAC - Hot Water and Ventilation	E
HVAC Basics	E
HVAC System Controls	E

INDUSTRIAL REFRIGERATION

Refrigeration - Compressors, Valves and Piping	E
Refrigeration - Refrigerant Properties	E
Refrigeration - Refrigerant Selection	E
Refrigeration - System Components	E
Refrigeration - System Troubleshooting	E
Refrigeration - Vapor-Compression Cycle	E
Refrigeration System: Operation	E

PLUMBING

Plumbing - Piping and Fixtures	E
Plumbing - Sewer & Water Supply Systems Troubleshooting	E

WATER SYSTEMS

Fresh Water Systems	E
Cooling and Chilled Water Systems	E

COMMERCIAL FACILITIES MAINTENANCE

BUILDING AUTOMATION

Building Automation Systems (BAS) Architecture
Building Automation Systems (BAS) Operations
Direct Digital Controls (DDC) Building Automation Basics
Pneumatic Building Automation Basics

CARPENTRY/HARDWARE

Carpentry Basics
Carpentry Basics: Drywall Repair
Carpentry Basics: Painting
Carpentry Basics: Tools and PPE
Carpentry Safety
Door and Hardware Maintenance and Repair
Doors and Hardware Basics
MRO Stockroom Management

COOLING

Cooling Basics
Cooling System Maintenance
Cooling Theory
Cooling: Hot & Cold Call Basics

ELECTRICAL

Basic Electrical Maintenance
Basic Electrical Theory
Basic Electrical Troubleshooting
Electrical Architecture
Electrical Safety
Electrical Theory & Mathematics
Lockout/Tagout & Basic Arc Flash
Volt/Ohm/Amp Meters

EMERGENCY POWER

Basic Emergency Power Systems
Emergency Power Testing
Intermediate Emergency Power Systems

ENERGY MANAGEMENT

Energy Accounting
Energy Management Basics
Low/No Cost Energy Savings Opportunities

FIRE SYSTEMS/SPRINKLERS

Fire Systems and Sprinkler Basics
Fire Systems: Fire Alarm Control Panel
Fire Systems: Fire Extinguishers
Fire Systems: Life Safety Testing
Fire Systems: Wet & Dry Sprinkler Systems

HEATING

Heating Systems Basics
Heating Theory
Hot Water Boilers
Steam Boilers

HVAC - AIR SIDE

HVAC – Air Side: Air Balance Basics
HVAC – Air Side: Air Distribution
HVAC – Air Side: Air Handling in Commercial Buildings
HVAC – Air Side: Hot & Cold Calls
HVAC – Air Side: Introduction to Air Handlers
HVAC – Air Side: Terminal Units
HVAC – Air Side: Variable Air Volume (VAV) Systems

HYDRONIC SYSTEMS

Hydronic Systems Basics
Hydronic Systems: Architecture and Operation
Hydronic Systems: Cooling Tower Basics
Hydronic Systems: Cooling Tower Operation
Hydronic Systems: Pumps and Pumping Systems

MOTORS

Advanced Motors
Intermediate Motors
Motor Basics

PLUMBING

Plumbing Basics
Plumbing Maintenance
Plumbing: Backflow Preventers
Plumbing: Pipe Fitting

PREVENTATIVE MAINTENANCE

Intermediate Maintenance Practices
Preventive Maintenance Basics
Reliability Centered Maintenance

REFRIGERATION

Refrigerant Management
Refrigeration Basics
Refrigeration Components
Refrigeration Theory

WATER TREATMENT

Intermediate Water Treatment
Water Treatment Basics

WORK ORDER MANAGEMENT

CMMS Basics
Workflow Management

INDUSTRIAL INSTRUMENTATION & CONTROL

CONTINUOUS PROCESS

Continuous Process: Multiple Loop Control	E
Continuous Process: Pneumatic Controls	E
Continuous Process: Principles	E
Continuous Process: Single Loop Control	E
Continuous Process: Smart Controllers	E
Continuous Process: Troubleshooting DCS I/Os: Procedures	E
Continuous Process: Troubleshooting Loops	E
Continuous Process: Tuning Loops	E
Field Devices: Analog Configuration	E
Field Devices: Analytical	E
Field Devices: Configuring with a Laptop PC	E
Field Devices: Digital Configuration with a DCS	E
Field Devices: Level and Flow	E
Field Devices: Pressure, Temperature, and Weight	E
Field Devices: Using Field Communicators	E

INSTRUMENTATION

ControlLogix®: Basic Programming	E
ControlLogix®: Communications & Advanced Programming	E
ControlLogix®: Configuring Hardware and Software	E
ControlLogix®: Basic System, Software & Hardware	E
ControlLogix®: The Project Structure	E
ControlLogix®: Troubleshooting	E
Core: Principles of Calibration	E
Distributed Control Systems Introduction	E
Flow, Level, and Pressure Sensors	E
Fluid Flow Measurement, Part 1	E
Fluid Flow Measurement, Part 2	E
I&C: Automatic Process Control, Part 1	E
I&C: Automatic Process Control, Part 2	E
I&C: Introduction to Control and Data Systems	E
I&C: Introduction to Process Control	E
I&C: Measurement of Concentration	E
I&C: Measurement of Density, Clarity, and Moisture	E
I&C: Measurement of Level and Flow	E
I&C: Measurement of Pressure and Temperature	E
I&C: The Human-Machine Interface	E
Liquid Level Measurement, Part 1	E

Liquid Level Measurement, Part 2	E
Measurement - Temperature, Force, and Fluid Properties	E
Photoswitches, Proximity Sensors, and Feedback Devices	E
Pressure and Pressure Measurement	E
Pressure Gauges and Calibration, Part 1	E
Pressure Gauges and Calibration, Part 2	E
Process Control Fundamentals	E
Temperature and Light Sensors	E
Temperature and Temperature Measurement, Part 1	E
Temperature and Temperature Measurement, Part 2	E

PROCESS CONTROL

Process Control Charts	E
Statistical Process Control, Part 1	E
Statistical Process Control: Basic Control Charts	E
Statistical Process Control: Introduction	E
Statistical Process Control: Process Variations	E

PROGRAMMABLE LOGIC CONTROLLERS

Ladder Logic, Data Files, Program Doc., & Bit Instruction	E
PLCs and Discrete Input and Output	E
PLCs: Human-machine Interfaces and Troubleshooting	E
PLCs: Installing and Maintaining	E
PLCs: I/O Communication	E
PLCs: Introduction to Programming, Part 1	E
PLCs: Introduction to Programming, Part 2	E
PLCs: Ladder Logic and Symbology	E
PLCs: Networks and Network Troubleshooting	E
PLCs: Numerics, Part 1	E
PLCs: Numerics, Part 2	E
PLCs: Program Entry, Testing, and Modification, Part 1	E
PLCs: Program Entry, Testing, and Modification, Part 2	E
PLCs: Programming Functions, Part 1	E
PLCs: Programming Functions, Part 2	E
PLCs: Troubleshooting Hardware	E
PLCs: Troubleshooting Software, Part 1	E
PLCs: Troubleshooting Software, Part 2	E
PLCs: Introduction and Theory of Operations	E
PLCs: Logic Operations	E
PLCs: Hardware, Inputs, Outputs, Discrete/Analog	E
PLCs: Programming a PLC System	E
PLCs: Design and Installation of a PLC System	E

INDUSTRIAL LABORATORY OPERATIONS**LABORATORY ANALYSIS**

Analytical Procedures	E
Gas Chromatography	E
High Pressure Liquid Chromatography	E
Infrared Analysis	E
Ion Concentration Analysis	E
Lab Technician Math, Part 1	E
Lab Technician Math, Part 2	E
Lab Technician Math, Part 3	E
Mass Spectrometry	E
Optical Analysis	E
UV-Visible Spectroscopy	E

LABORATORY CHEMISTRY

Aliphatic Chemistry	E
Aromatic Chemistry	E
Atomic Absorption	E
Inorganic Chemistry	E

LABORATORY EQUIPMENT

Glassware	E
Hardware	E

LABORATORY OPERATIONS

Basic Lab Operations	E
Nuclear Magnetic Resonance	E
Quality Control and Assurance	E
Robotics	E
Sample Preparation	E
Separation and Isolation of Materials	E
Weighing and Measuring Techniques	E

LABORATORY SAFETY

Lab Safety: Laboratory Ergonomics	E
Lab Safety: Laboratory Hoods	E
Lab Safety: Safe Handling of Laboratory Glassware	E



Lab Safety: Orientation to Laboratory Safety	E
Lab Safety: Planning for Laboratory Emergencies	E
Lab Safety: Handling Compressed Gas Cylinders in the Lab	E
Lab Safety: OSHA Formaldehyde Standard	E
Lab Safety: Electrical Safety in the Laboratory	E
Lab Safety: Safety Showers & Eye Washes in the Laboratory	E
Lab Safety: Preventing Contamination in the Laboratory	E
Lab Safety: Flammables & Explosives in the Laboratory	E
Lab Safety: GHS Safety Data Sheets in the Laboratory	E
Personal Safety for Lab Technicians	E
The Safe Lab Environment	E

POWER GENERATION

BOILERS

Boiler Feedwater - Chemical Additives	E
Boiler Feedwater - Deaeration	E
Boiler Feedwater - Demineralizer	E
Fluidized Bed Boilers	E
Power Boiler Air and Combustion	E
Power Boiler Ash Handling	E
Power Boiler Basics	E
Power Boiler Feedwater and Steam	E
Power Boiler Fuel Supply Systems	E
Boiler Technology	E
Boilers: Combustion, Water, and Steam	E
Boiler Instruments and Controls	E
Boiler Fundamentals	E
Power Plant Boilers: Abnormal Conditions and Emergencies	E
Power Plant Boilers: Combustion and Operation	E
Power Plant Boilers: Normal Operations	E
Power Plant Boilers: Startup and Shutdown	E
Power Plant Boilers: Water and Steam	E
Analysis of Boiler Efficiency	E
Boiler Efficiency 1: Air Heaters and Preheaters	E
Boiler Efficiency 2: Windboxes, Burners, and the Furnace	E
Boiler Efficiency 3: Superheaters, Reheaters, & Economizer	E
Efficient Boiler Operation	E
Feedwater Heater Efficiency	E
Boiler Efficiency 2: Oil and Gas Fired Furnaces	E
Efficient Operation of Oil and Gas Fired Boilers	E

COAL HANDLING

Ash Handling	E
Auxiliary Equipment	E
Barge Unloading	E
Bulldozers	E
Car Dumpers	E
Coal Handling Overview, Part 1	E
Coal Handling Overview, Part 2	E
Coal Handling Overview, Part 3	E
Coal Pile Management	E
Coal Preparation Equipment	E
Coal Yard Maintenance	E
Control Equipment	E
Conveyors	E
Dust Control	E
Dust Control Equipment, Part 1	E
Dust Control Equipment, Part 2	E
Handling Wet and Frozen Coal	E
Rail Yard Operations	E
Stackers	E
Trippers	E

COMBINED CYCLE

Combined Cycle: Abnormal Operations	E
Combined Cycle: Distributed Control Systems	E
Combined Cycle: Heat Recovery Steam Generators	E
Combined Cycle: Normal Operations	E

COMBUSTION TURBINES

Combustion Turbine: Abnormal Operations	E
Combustion Turbine: Components	E
Combustion Turbine: Normal Operations	E
Combustion Turbine: Principles	E
Combustion Turbine: Support Systems, Part 1	E
Combustion Turbine: Support Systems, Part 2	E

CONDENSERS

Condenser Efficiency	E
Efficient Condenser Operation	E

FURNACES

Furnace Introduction	E
Furnace Fundamentals	E
Furnaces: Operating Conditions	E
Furnaces: Startup and Shutdown	E

POWER PLANT OPERATION

Power Plant Systems: Condensate and Feedwater Systems	E
Power Plant Operation: Safety and Pollution Control	E
Power Plant: Condenser and Circulating Water	E
Power Plant: Condensate and Feedwater System	E
Power Plant: Power & Energy	E
Power Plant: Power Generation	E
Power Plant: Steam Cycle	E
Power Plant: Steam Systems	E
Electrical Energy and Power	E
Introduction to Heat Rate Improvement	E
Principles of Heat Transfer	E
Power Plant Thermodynamics	E
Cycle Efficiency	E
Power Plant Efficiency: Problems and Analysis	E
Efficient Power Plant Operation	E
ACM: Setting Up an Oil Analysis Program	E
Power Plant Protection: Boiler and Turbine Protections	E
Power Plant Protection: Fundamentals	E
Power Plant Protection: Integrated Systems	E
IPD: Facility Distribution Circuits, and PD Basics	E

TURBINES AND POWER GENERATION

Multi-Stage Turbines	E
Steam Turbine Mechanical Drives	E
Turbine Generator Basics	E
Power Plant Turbines: Bearings and Operation	E
Power Plant Turbines: Steam Flow	E
Analysis of Turbine Efficiency	E
Turbine Efficiency, Part 1	E
Turbine Efficiency, Part 2	E
Turbine Efficiency, Part 3	E
Steam Turbines	E

TRANSMISSION & DISTRIBUTION**OVERHEAD LINE**

T&D: Working on Distribution Poles	E
T&D: Overhead Distribution Systems	E
Climbing Steel Poles and Towers	E
Climbing Wooden Poles	E
34.5 KV Rubber Glove Work	E

Overhead Troubleshooting, Part 1	E
Overhead Troubleshooting, Part 2 - Emergency Conditions	E
Tree Trimming, Part 1	E
Tree Trimming, Part 2	E
Overhead Distribution Systems	E
Pole Framing and Guying	E
Troubleshooting Overhead Lines	E
Pole Top Equipment & Replacement, Part 1	E
Pole Top Equipment & Replacement, Part 2	E
Pole Top Transformer Replacement	E
Transformer Connections, Part 2	E
Transformer Connections, Part 1	E
Transmission Line Repair - Bare Hand Method	E
Transmission Line Repair - Hot Sticks	E
Transmission Line Installation	E
Transmission Structures	E
Transformer Troubleshooting	E
Working on De-energized Transmission Lines	E
Working on Distribution Poles	E

RIGGING (ITD)

Rigging, Part 1	E
Rigging, Part 2	E
Power Quality and Reliability	E
Advanced Rigging - Transmission & Distribution	E
Rigging for High Voltage Line Work	E

T&D CONSTRUCTION

T&D: Service Installation	E
T&D: Distribution Line Replacement	E
T&D: Focus on Distribution	E
T&D: Distribution Line Installation and Removal	E

T&D EQUIPMENT

Service Installation	E
Setting and Replacing Poles	E
Temporary Structures	E
Distribution	E
Distribution Line Repair - Gloves	E
Distribution Line Repair - Hot Sticks	E
Distribution Line Installation and Removal	E
Distribution Line Replacement	E
Bucket Trucks, Part 1	E
Bucket Trucks, Part 2	E



Hydraulic Derricks	E
Material Handling Bucket Trucks	E
Mobile Hydraulic Systems	E

T&D MAINTENANCE

Compressors and Pneumatic Tools	E
Care and Testing of Tools and Equipment	E
Hydraulic Hand Tools, Part 1	E
Hydraulic Hand Tools, Part 2	E
System Protection and Monitoring	E
Using Line Test Equipment	E

T&D SAFETY

Safe Bucket Truck Operations	E
Distribution Line Safety	E
Transmission Line Safety	E
Safety in Overhead Line Maintenance	E
Safety in Substations and Switchyards	E
Safety in Transmission and Distribution Maintenance	E
Safety in Underground Line Maintenance	E

T&D SYSTEMS AND THEORY

Transmission and Distribution: Substations and Switchyards	E
Transmission and Distribution: Introduction to Transmission and Distribution Systems	E
High Voltage AC Power, Part 1	E
High Voltage AC Power, Part 2	E
Introduction to Smart Grid	E
Introduction to Transmission and Distribution Systems	E
Multiple Street Lighting Systems	E
Reading Electrical System Diagrams, Part 1	E
Reading Electrical System Diagrams, Part 2	E
Series and Street Lighting	E
Substations and Switchyards	E
Transmission	E

UNDERGROUND LINE / CABLE

Transmission and Distribution: Underground Residential Distribution Systems	E
Cable Fault Location, Part 1	E
Cable Fault Location, Part 2	E

Cable Splicing, Part 1	E
Cable Splicing, Part 2	E
Cable Terminations	E
Cable Fault Locating, Part 1 (Radar)	E
Cable Fault Locating, Part 2 (Radar)	E
URD Troubleshooting	E
Pad-Mounted Transformers and Switchgear	E
Underground Cable Installation	E
Underground Residential Distribution Systems	E
Underground Conduit	E
URD Transformers	E

PAPER

BROKE SYSTEMS

Broke Cleaning & Screening	E
Broke Repulpers	E
Broke System Inventory Management	E
Broke System Purpose & Operation	E,S,O
Under-Machine Repulpers	E,O

CHEMICAL ADDITIVES

Starch Cooking	E
Wet End Chemistry - Functional Papermaking Additives	E,O
Wet End Chemistry - Papermaking Process Additives	E
Wet End Chemistry Basics	E,O

DRY END EQUIPMENT

Calendaring - Hard Nip	E,O
Calendaring - Wet Stack	E
Carrier Ropes - Design & Operation	E,S,O
Carrier Ropes - Procedures & Maintenance	E,O
Carrier Ropes - Safety	E
Dry End QCS Scanner	E
Paper Coating Ingredients	E
Paper Coating Operations	E,O
Paper Machine Reel Systems	E,O
Tail Threading	E
Web Guiding & Spreading	E

FINISHING

Paper Machine Winder Safety	E
Paper Machine Winder Slitting	E
Paper Machine Winding Basics	E,S,O
Pulp Drying & Bailing	E
Roll Handling & Wrapping	E

FORMING

Forming Fabric Design	E,O
Forming Fabric Tensioning & Guiding	E
Fourdrinier Design & Operation	E,O
Multi-Ply Forming	E,O
Paper Machine Twin-Wire Formers	E,O
Sheet Formation	E,O
Wet Edge Control	E,O
Wet Edge Trimming	E,O

GENERAL PAPERMAKING

Introduction to Paper & Board Machines	E
PM Doctor Blade Components & Troubleshooting	E
Paper Machine Doctors	E,O
Paper Machine General Safety	E
Pulping & Papermaking Overview	E,O
Steam Theory Fundamentals	E

HEADBOXES

Air-Padded Headboxes	E
Multi-Layer Headboxes	E,S,O
Stock Jet Geometry for Fourdriniers	E,O
Stock Jet Geo. for Roll Type Gap Formers	E,O

PAPER MACHINE AUXILIARY SYSTEMS

Paper Machine Adjustable Drives	E
Paper Machine Hydraulic Systems	E
Paper Machine Line Shaft Drives	E
Paper Machine Lubrication Systems	E,O
Paper Machine Vacuum Systems	E
Steam Theory for Paper Machines	E,O
Vacuum Pumps, Blowers, & Ejectors	E,O
Wet End Showers	E

PAPER MACHINE DRYERS

Dryer Felt Design	E
Dryer Felt System Operations	E
Paper Machine Alternative Drying Systems	E
Paper Machine Cascade Steam Systems	E
Paper Machine Dryer Hood Air Systems	E,S,O
Paper Machine Drying	E
Paper Machine Thermocompressor Steam Systems	E
Size Presses	E,O

PAPER PROPERTIES & TESTING

CD Profile Control	E
Common Physical Tests for Paper & Board	E
Paper & Board Optical Tests	E
Paper & Board Strength Tests	E
Papermaking Process Testing	E

STOCK APPROACH

Centrifugal Cleaners	E,O
Pressure Screens	E
Stock Approach - Deaeration	E
Thin Stock Screening	E
Thin Stock System Design	E

STOCK PREPARATION

High Consistency Refining	E
High Density Cleaners	E
Paper Machine Refining	E,S,O
pH & Consistency Control for Paper Machine Stock	E
Thick Stock System Design	E

STORAGE & SHIPPING

Clamp Trucks - Preventing Paper Roll Damage	E,S
Product Storage & Tracking	E
Railcar Loading - Corrugated Paper Rolls	E
Roll Storage & Tracking	E
Truck Trailer Loading - Corrugated Paper Rolls	E

WET PRESSING

Felt Cleaning & Conditioning	E,O
Felt Tensioning & Guiding	E,O
Paper Machine Suction Rolls & Roll Covers	E,O
Roll Presses	E,O



Shoe Presses	E,O
Wet End Steam Boxes	E
Wet Pressing Theory	E,S,O

WHITE WATER & FILTRATE SYSTEMS

DAF System Chemicals & Chemistry	E
Dissolved Air Flotation (DAF) Systems	E
Strainers & Filters	E
White Water Circulation Loops	E
White Water Clarification	E
White Water System Design	E

PULPING

BLEACHING

Alkaline Extraction	E
Bleaching Basics	E,O
Bleaching Equipment	E,O
Bleaching Sequences & Filtrate Recycling	E,O
Chlorine Dioxide Bleaching	E
Chlorine Dioxide Generation	E,O
Chlorine Dioxide Generation Chemical Safety & Environ.	E,O
Oxygen Delignification	E,O
Ozone Bleaching	E
Peroxide Bleaching	E
Pulp Bleaching Environmental Considerations	E

ENVIRONMENTAL

CNGC Systems	E
Contaminated Condensate Systems	E
HVLC Systems	E
Process Sewers & Effluent Collection	E
Wastewater - Pretreatment & Primary Treatment	E
Wastewater - Secondary Treatment	E

EVAPORATORS

Black Liquor Evaporators - Equipment	E
Black Liquor Evaporators - Introduction	E,O
Black Liquor Evaporators - Operations	E
Black Liquor Evaporators - Principles	E,O
Black Liquor Testing	E

FIBER SUPPLY

Chip Screening	E
Log handling & Chip Storage	E
Paper Fiber Sources	E
Wood & Chip Properties & Quality Testing	E,O
Woodyard Cranes	E

KRAFT PULPING

Air Emissions Monitoring Basics	E,O
Batch Cooking Introduction	E,O
Blow Line Refining Operation	E
Brown Stock Screening	E,O
Brown Stock System Basics	E,O
Brown Stock Washing	E,O
Continuous Cooking Introduction	E,O
Continuous Digesters - Hydraulic	E
Continuous Digesters - Vapor Phase	E
Digester Types	E
Kraft Pulping By-Products	E
Kraft Pulping Liquor Chemistry	E

RECAUST

Dregs Washing	E,O
Electrostatic Precipitators	E,O
Exhaust Gas Scrubbers	E,O
Green Liquor Clarifiers	E,O
Lime Kiln Fundamentals	E,O
Lime Mud Filtering	E
Lime Mud Washers	E
Recaust Liquor Testing	E
Recausticizing Fundamentals	E,O
Slaking & Causticizing	E,O
Titration Fundamentals	E
White Liquor Clarifiers	E,O

RECOVERY

Baghouse Basics	E
Kraft Recovery Boiler Fundamentals	E,O
Kraft Recovery Boilers - Fireside	E,O
Kraft Recovery Boilers - Liquor System	E,O
Kraft Recovery Boilers - Precipitator	E
Kraft Recovery Boilers - Sootblowers	E,O
Kraft Recovery Boilers - Waterside	E
Recovery Boiler BLOX System Operation	E

SUPPLEMENTAL & RECYCLED FIBER

OCC - Bale Handling	E
OCC - Cleaning	E
OCC - Coarse Screening	E
OCC - Fine Screening	E
OCC - HD Centrifugal Cleaners	E
OCC - Pulping	E
Supplemental & Recycled Fiber - Bale Handling	E
Supplemental & Recycled Fiber - Fiber Cleaning	E
Supplemental & Recycled Fiber - Fiber Deinking	E
Supplemental & Recycled Fiber - Fiber Fundamentals	E
Supplemental & Recycled Fiber - Fiber Prep & Screening	E
Supplemental & Recycled Fiber - Recycling Fiber Overview	E
Supplemental & Recycled Fiber - Rejects Handling	E

TISSUE

BROKE SYSTEMS

Broke Cleaning & Screening - Tissue*	E
Broke System Purpose & Operation - Tissue*	E

DRY END EQUIPMENT

Dry End QCS Scanner - Tissue*	E
-------------------------------	---

FORMING

Tissue Machine Forming Fabric Design	E
--------------------------------------	---

GENERAL TISSUE MAKING

Steam Theory for Tissue Machines	E
Tissue Machine Roll Doctors	E
Tissue Machine Specific Hazards	E
Tissue Making Basics	E

HEADBOXES

Multi-Layer Hydraulic Headboxes	E
Stock Jet Geometry for Gap Roll Formers	E

STOCK APPROACH

Centrifugal Cleaners - Tissue	E
Thin Stock Screening - Tissue*	E
Thin Stock System Design - Tissue*	E

STOCK PREPARATION

High Density Cleaners - Tissue	E
pH & Consistency Control for Tissue Machine Stock*	E
Thick Stock System Design - Tissue*	E
Tissue Machine Refining	E

TISSUE MACHINE AUXILIARY SYSTEMS

Tissue Machine Hydraulic Systems	E
Tissue Machine Lubrication Systems	E
Tissue Machine Vacuum Systems*	E
Wet End Showers - Tissue*	E

TISSUE PROPERTIES & TESTING

Tissuemaking Process Testing	E
------------------------------	---

WET PRESSING

Shoe Presses - Tissue	E
-----------------------	---

WHITE WATER & FILTRATE SYSTEMS

DAF System Chemicals & Chemistry - Tissue	E
Dissolved Air Flotation (DAF) Systems - Tissue	E

YANKEE DRYERS

Yankee Dryer Coating	E
Yankee Dryer Design & Construction	E
Yankee Dryer Dry Creping Basics	E
Yankee Dryer Safety	E
Yankee Dryer Steam & Condensate Systems	E
Yankee Hoods & Air Systems	E

MINING (MSHA)

INTRODUCTION TO THE MINE ENVIRONMENT

General Physical Characteristics of Surface Mines	E
MSHA Surface Miner Training & Documentation	E
Surface Mine Dev., Ops., & Reclamation	E
Typical Surface Mining Equipment	E

HAZARD RECOGNITION & AVOIDANCE

Chemical Hazards at a Mine	E
Confined Space Entry - Permit Required	E

Environmental Hazards at a Mine	E
Equipment Hazards at a Mine	E
Heavy Equipment Safety Introduction	E
Physical Hazards at a Mine	E

EMERGENCY PROCEDURES

Emergency Procedures at a Mine	E
Fire Extinguisher Safety	E

HEALTH & SAFETY ASPECTS OF TASKS

Commercial Explosives Safety	E
Fall Prevention & Protection	E
Hazard Communication for Mining	E
Hearing Conservation	E
Maintenance Safety	E
Night Shift Safety	E
Personal Protective Equipment	E
Working Around Mining Equipment	E
Working Over or Near Water	E
Working with Electricity at a Mine	E

RIGHTS & REPORTING

Line of Authority	E
Rights & Legal Responsibilities of Miners	E
Site Rules & Hazard Reporting	E

RESPIRATORS & FIRST AID

Escape Respirators & SCSRs	E
First Aid - Automated External Defibrillator (AED)	E
First Aid - Cardiopulmonary Resuscitation (CPR)	E
First Aid - Initial Steps	E
Respirator Basics	E

CORRUGATED PACKAGING

BOX PLANT BASICS

Board Tests	E,S
Box Plant Equipment Basics	E,S
Corrugated Box Basics	E,S
Corrugating Adhesives	E,S

Corrugators	E,S
Die Cutters	E,S
Flexo Folder-Gluers	E,S
Other Box Plant Equipment	E,S
Raw Materials	E,S
Safety	E,S

OIL & GAS

DISTILLATION

Distillation: Basic Principles	E
Distillation: Basic System Components and Operation	E
Distillation: Control Systems	E
Distillation: Operating Problems	E
Distillation: System Startup and Shutdown	E
Distillation: Towers, Reboilers, and Condensers	E

DRILLING

OSHA Safety: Drilling	E
Formation Evaluation by Wireline Logging	E
Petroleum Drilling Technology	E
Mud Logging Sensors and Modern EDR Systems	E

NATURAL GAS BASICS

Gas Pipelines - Public Awareness	E
Liquefied Natural Gas (LNG): Globalization of LNG	E

REFINING TECHNOLOGIES

Alkylation Operations	E
Azeotropic, Extractive, and Vacuum Columns	E
Basic Refinery Operations	E
Blending Operations	E
Crude Distillation Operations	E
Fluid Catalytic Cracking Operations	E
Hydrotreating and Catalytic Reforming, Part 1	E
Hydrotreating and Catalytic Reforming, Part 2	E
Petroleum Refining & Health & Safety Considerations	E
Refining Basics	E
Treating and Sulfur Recovery Operations	E

PETROLEUM MANUFACTURING BASICS

Fundamentals of Petroleum Engineering	E
Fundamentals of Petroleum Engineering	E
PE: Liquid Process Piping - General Piping Design	E
PE:Liquid Process Piping - Introduction & Design Strategy	E
Petroleum Instrumentation and Measurement	E
Petroleum Instrumentation and Measurement	E
Industry - Crude Oil Classification and Benchmarks	E
Industry - Exploration, Recovery, & Transportation	E
Industry - History, Terminology, and Culture	E
Industry - Oil Supply	E
Industry - Origins and Occurrence of Oil	E
Industry - The Crude Oil Market	E
Industry - The Future	E

FOOD & BEVERAGE

FOOD SAFETY

Hand Washing and Hygiene	E
Storage and Handling of Pesticides	E
Safe Food Handling	E
Injury Prevention in Restaurants and Food Service	E

HEALTH & SAFETY (EHS)

CRANES & RIGGING

Crane & Hoist Rigging Safety	E,G,S,C,O
Crane Hand Signals	E,O
Overhead Crane Basics	E,G,S,C,O
Overhead Crane Operational Safety	E,G,S,C,O
Truck Mounted Cranes	E
Wire Rope Basics	E
Wire Rope Safety & Operation	E

DRIVER SAFETY

Alert Driving	E,S
Backing Up Safely	E
Dangers of Distracting Driving	E
Delivery Truck Maintenance	E
DOT ERG Introduction	E

DOT HAZMAT Safety	E,O
Driving Hazard Recognition	E,S
Driving Large Vehicles & Heavy Equipment	E
Driving Preparation	E,S
Environmental Driving Hazards	E
Hazard Perception - Hidden Hazards	E
Load Securement	E
Preventing Intersection Collisions - Cross Traffic	E
Preventing Intersection Collisions - Rear-Ends	E
Preventing Intersection Collisions - Turning	E
Preventing Loss of Control Crashes	E
Preventing Sideswipe Collisions	E
Sharing the Road with Pedestrians & Cyclists	E
Speed & Space Management	E
Tanker Rollover	E,S
Work Zone Driving Hazards	E
Work Zone Safety	E

ELECTRICAL

Arc Flash Safety	E,S,O
Electric Shock	E
Electrical Safety General Awareness	E,G,S,C,O
NFPA 70E Introduction	E
OSHA Electrical General Requirements	E
OSHA Electrical Wiring Methods	E

ENVIRONMENTAL

Aboveground Storage Tank Requirements (AST)	E
Bioremediation Tactics	E
Clean Water Act Section 404 Permits	E
Construction Site Stormwater Runoff Control	E
NPDES Wastewater Discharge Permits	E
Pollution Prevention Best Practices	E
Pressure Washing Best Management Practices	E
RCRA - Emergencies, Inspections & Training	E
RCRA - Generator, Container & Tank Requirements	E
RCRA - Introduction	E
RCRA - Preparing for Transportation, Manifesting & LDR	E
RCRA - Special Wastes & Other Requirements	E
SPCC Inspections	E
SPCC Run-on and Run-off	E
SPCC Secondary Containment	E
Spill Prevention, Control, & Countermeasures	E
Stormwater Pollution Prevention	E

Underground Storage Tank Requirments (UST)	E
Universal Waste Storage & Handling	E
Volatile Solvent Spill Response	E

EQUIPMENT SAFETY

Compressed Gas Cylinder Safety	E,S
Conveyor Safety	E,O
Equipment Hazard Basics	E,O
Forklift Safety	E,G,S,C,O
Forklifts - Reducing Product Damage	E
Hand & Power Tools	E,G,S,C,O
Heavy Equipment Safety Introduction	E
Heavy Equipment Visibility	E,O
Hydraulic Fluid Safety	E,S,C
Laser Safety	E,G,S,C,O
Machine Guarding	E,G,S,C,O
Mechanical Power Press Safety	E
Metal on Metal Safety	E
Pallet Jack Safety	E
Pedestrian Safety	E,G,S,C,O
Pneumatic Tool Safety	E,O
Portable Loading Ramps	E
Steam Pipe Safety	E
Welding Safety	E

ERGONOMICS

Back Injury Prevention	E,S,C
Ergonomics for Industrial Environments	E,G,S,C,O
Ergonomics for Office Environments	E
Shoulder Injury Prevention	E

FIRE

Fire Extinguisher Safety	E,S,O
Fire Safety	E,G,S,C,O

FIRST AID

First Aid - Alcohol & Drug Overdoses	E
First Aid - Animal & Human Bites & Scratches	E
First Aid - Automated External Defibrillator (AED)	E
First Aid - Bleeding Emergencies	E
First Aid - Breathing Emergencies	E
First Aid - Broken Bones & Dislocations	E
First Aid - Burns	E
First Aid - Cardiopulmonary Resuscitation (CPR)	E
First Aid - Dehydration	E

First Aid - Diabetic Emergencies	E
First Aid - Eye Injuries	E
First Aid - Fire Ant Bites & Stings	E
First Aid - Flying Insect Stings	E
First Aid - Head Injuries & Concussions	E
First Aid - Head, Neck, Back, and Spine Injuries	E
First Aid - Heart Attacks & Cardiac Arrest	E
First Aid - Initial Steps	E
First Aid - Poisoning	E
First Aid - Scorpion Stings	E
First Aid - Seizures	E
First Aid - Shock	E
First Aid - Snake Bites	E
First Aid - Spider Bites	E
First Aid - Sprains & Strains	E
First Aid - Stroke	E
First Aid - Tick Bites	E
First Aid - Unconsciousness	E

GENERAL SAFETY

Behavior-Based Safety	E
Commercial Explosives Safety	E
Confined Space Entry - Permit Required	E,G,S,C,O
Confined Space Entry Awareness	E,G,S,C,O
Hand Safety	E,G,S,C,O
Hot Work Safety	E,G,S,C,O
Maintenance Safety	E
Night Shift Safety	E
Safety & Health - Advanced	E
Safety & Health - Basic	E
Safety Showers & Eye Washes	E
Steel Erection Safety	E
Trenching & Excavation Safety	E,S
Trenching & Excavation Soil Properties	E
Warehouse & Loading Dock Safety	E
Working Over or Near Water	E

HAZARDOUS MATERIALS

Anhydrous Ammonia Awareness	E,S,C
Asbestos Awareness	E,S
Chemical Unloading Basics	E
Chlorine Dioxide Awareness	E,O
Combustible Dusts	E,S
Crystalline Silica Awareness	E,O
Flammable & Combustible Liquids	E

Formaldehyde Awareness	E,G,S,C,O
Hazard Communication - GHS	E,S,C
Hazardous Material Classification	E
Hazardous Material Labeling	E
Hazardous Material Storage	E
Hexavalent Chromium	E
Hydrogen Sulfide Awareness	E
Lead Awareness	E
Lead-Based Paint Safety	E
Mold Awareness & Prevention	E
Process Safety Management	E,O
Radiation Safety	E,S
Storage & Handling of Combustibles	E
Storage & Handling of Corrosives	E
Storage & Handling of Flammables	E
Storage & Handling of Pesticides	E
Turpentine Awareness	E
Worker Right to Know (RTK)	E
Workplace Hazardous Materials Information (WHMIS)	E

HEALTH & ILLNESSES

Bloodborne Pathogens	E,S,C
Bloodborne Pathogens for Hospitality	E
Bloodborne Pathogens for Schools	E
Cold Stress	E,S
Flu Awareness*	E
Hand Washing & Hygiene	E,S,C
Heat Stress Causes	E,S
Heat Stress Symptoms & Prevention	E,S

LOCKOUT & ENERGY CONTROL

Blocking & Cribbing for Heavy Equipment	E
Line Breaking Safety	E,S
Lockout Tagout for Affected Employees	E,G,S,C,O
Lockout Tagout for Authorized Employees	E,G,S,C,O

PERSONAL PROTECTIVE EQUIPMENT

Air-Purifying Respirators	E
Air-Supplying Respirators	E
Escape Respirators & SCSRs	E
Hearing Conservation	E,G,S,C,O
Personal Protective Equipment	E,G,S,C,O
Respirator Basics	E,G,S,C,O
Respirator Medical Evaluation & Fit Testing	E
Respirators - Voluntary Use	E

SAFETY MANAGEMENT

Barrier Analysis	E
Change Analysis	E
Emergency Action Plans	E
Events & Causal Factors Analysis	E
Floor & Walkway Safety & Auditing	E
Hot Work Permit	E
Incident Investigation	E,G,C,O
Industrial Hygiene Basics	E
Job Hazard Analysis	E
Medical & Exposure Records Access	E
Near Miss Best Practices	E
OSHA Recordkeeping	E
Root Cause Analysis	E
Root Causes of Human Behavior	E
Safety Inspections & Observations	E
Slip, Trip, and Fall Prevention Inspections	E
Task Analysis	E

WORKING AT HEIGHTS

Aerial Work Platform Safety	E,S,O
Fall Prevention & Protection	E,G,S,C,O
Ladder Safety	E,S,C,O
Mounting & Dismounting Heavy Equipment	E
Slips, Trips, & Falls	E,G,S,C,O
Supported Scaffold Safety	E,S,O

TRANSPORTATION SAFETY

DRIVER SAFETY

Alert Driving	E,S
Backing Up Safely	E
Dangers of Distracted Driving	E
Delivery Truck Maintenance	E
DOT ERG Introduction	E
DOT HAZMAT Safety	E
Driving Hazard Recognition	E,S
Driving Large Vehicles & Heavy Equipment	E
Driving Preparation	E,S
Environmental Driving Hazards	E
Hazard Perception - Hidden Hazards	E
Load Securement	E
Preventing Intersection Collisions - Cross Traffic	E



Preventing Intersection Collisions - Rear-Ends	E
Preventing Intersection Collisions - Turning	E
Preventing Loss of Control Crashes	E
Preventing Sideswipe Collisions	E
Sharing the Road with Pedestrians & Cyclists	E
Speed & Space Management	E
Tanker Rollover	E,S
Work Zone Driving Hazards	E
Work Zone Safety	E

DOT COMPLIANCE BASICS

DOT Alcohol & Drug Testing for Drivers	E
DOT CSA Awareness	E
DOT ERG Introduction	E
DOT Hours of Service Compliance	E
DOT Reasonable Suspicion Supervisor Training - Alcohol	E
DOT Reasonable Suspicion Supervisor Training - Drugs	E
DOT Roadside Inspections	E

DOT HAZMAT

DOT HAZMAT - General Awareness	E
DOT HAZMAT - Highway Carrier Loading & Unloading	E
DOT HAZMAT - Highway Carrier Segregation Requirements	E
DOT HAZMAT - Labeling	E
DOT HAZMAT - Marking	E
DOT HAZMAT - Packaging	E
DOT HAZMAT - Placarding	E
DOT HAZMAT - Security Requirements	E
DOT HAZMAT - Shipping Papers	E
DOT HAZMAT Safety	E

HR COMPLIANCE & SOFT SKILLS

HR COMPLIANCE

Active Shooter Response	E,S
Cell Phone Use in the Workplace	E
Conflict Management	E,S
Disabilities in the Workplace	E
Discrimination in the Workplace	E,S
Diversity in the Workplace	E
Email Basics	E

Sexual Harassment Awareness	E,S
Stress Management & Prevention	E
Substance Abuse Awareness	E
Violence in the Workplace	E,S

SUPERVISOR & LEADERSHIP SKILLS

Business Ethics	E
Change Management	E
Communication Skills for Supervisors	E
Seven Basic Quality Tools	E

TRAIN THE TRAINER

Adult Learning	E
OJT Mentor	

OUR APPROACH TO TRAINING DEVELOPMENT

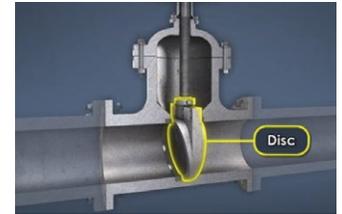
We reject the traditional “bad actor” approach of most training video productions, choosing instead to create lively and modern training based on high-resolution 3D models and studio-quality motion graphics. This modern approach to training content development allows us to show components, processes, and procedures in great detail and simulate dangerous scenarios much more realistically than typical video-based training courses.

Our attention to detail and our commitment to delivering the highest-quality visual information sets us apart from other training content developers.

OBJECTIVE-BASED TRAINING

Our courses are developed according to the ADDIE model. Each module is designed with specific learning objectives in mind, and those objectives are reinforced in the course content and supported by interactive progress reviews and knowledge assessments.

- **Built-in quizzes reinforce learning objectives**
- **SCORM compliant training modules**
- **Available in multiple language formats**



3D GRAPHICS

3D graphics are the best way to visualize:

- Very small things like chemical reactions & particle behavior
- Very large things, like paper machines that can fill an entire building
- Very fast things like high-speed mechanical components

3D Graphics can also show:

- Views you may not normally be able to see by removing guarding, walls, floors, and support structures
- Equipment before it has been installed and set up
- Safety concepts - without risking actual human safety
- Maintenance procedures - without the expense of shutting down production equipment

CUSTOM TRAINING DEVELOPMENT

New Equipment

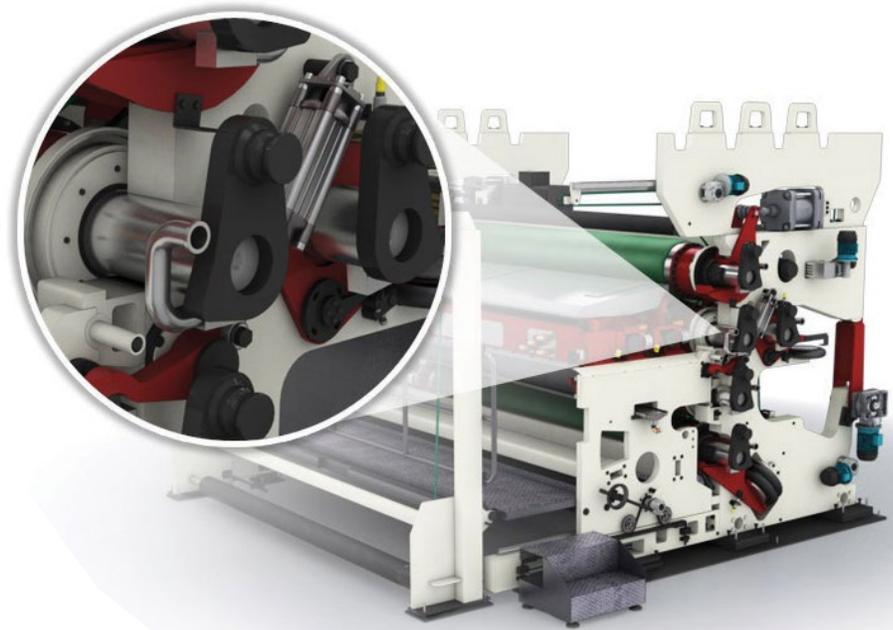
Develop training to aid in instructing employees on the operation and maintenance of new equipment so you can be running at full capacity as soon as it's installed

New Facilities

Develop custom models of entire production lines and provide for more effective onboarding before you even open your doors

New Products

Develop in-depth demonstrations of your products to send to prospective clients and sales staff

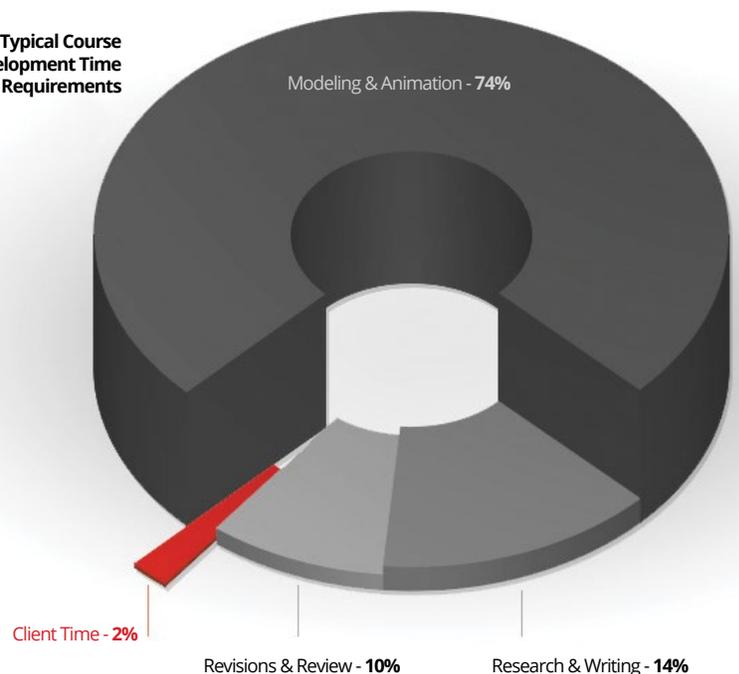


LEAVE IT TO US

For custom courses, we typically require very little from the client. Our team takes care of gathering photos, video, and other resources to develop your training. Our process is designed to leave you as free as possible to attend to your day-to-day responsibilities.

Throughout the production of your training, you'll be presented with opportunities to review and request revisions of your custom training content. We've been through this process many, many times, and have an unblemished history of meeting client expectations.

Typical Course
Development Time
Requirements



WORKFORCE TRAINING MANAGEMENT SOFTWARE

Introducing Convergence LMS. Tools to help manage EHS compliance and develop employee job skills more quickly.



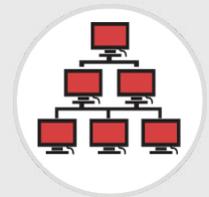
Identify skills and compliance gaps to strengthen your workforce



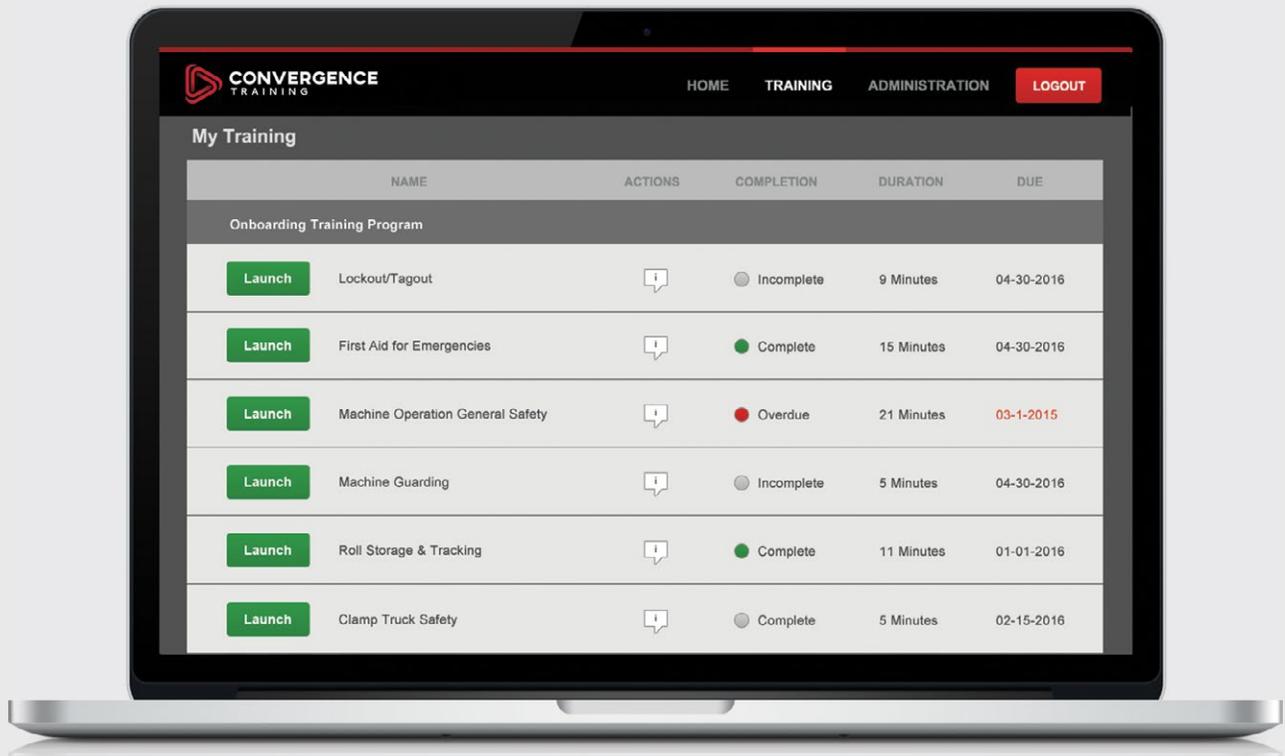
Easily assign pre-designed training programs to employees



Track and record online, classroom, and on-the-job training



Deliver a consistent training program across your organization



CONVERGENCE TRAINING

4600 NW Camas Meadows Drive, Suite 200
Camas, WA 98607

800.619.2280

360.339.6433

www.convergencetraining.com